

About Myself



Petr Stepanov (Peter)

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CURRENT ROLE



2 years • *Postdoc at Thomas Jefferson National Laboratory (JLab), employed by CUA • Newport News, VA*

- Application of the Geant4 (C++) particle simulation framework for **optical simulations** for the EIC project.
- Utilizing CERN ROOT libraries (C++) for experimental **data fitting and analysis** for Kaon-LT project.
- Application of the TMVA **Machine Learning** Framework for **binary data classification**.
- Conducting hi-energy particle (HEP) **experiments** at the **particle accelerator**, Hall C.

C++ CMake CERN ROOT Geant4 supercomputer environment

EDUCATION



5 years • *Bowling Green State University • Bowling Green, OH*

Ph.D. in Photochemical Sciences. Developed three GUI open-source desktop software solutions for fitting and interpretation of the experimental data. C++ GNU Make Qt



5 years • *National Research Nuclear University • Moscow, Russia*

M.S. in Solid State Physics. Monte-Carlo particle simulations. Desktop scientific software development.

Fortran MSVC



6 months • *British Higher School of Art & Design • Moscow, Russia*

Three-month intensive on [graphical design and visual communications](#).

Typography Illustration Visual identity Brand design

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RESEARCH AND WORK EXPERIENCE



5 years • Research Assistant (Desktop Software Developer) • Bowling Green, OH

- Assembled and utilized positron lifetime (PALS) and Doppler spectrometers (DBAR) from ORTEC and Canberra fast electronic units.
- Experience with semiconductor High-Purity Germanium detectors (HPGe) and scintillation-based detector systems.
- Developed open-source software (C++, CERN ROOT) for novel interpretation of the experimental spectra.
- Defined and resolved kinetic equations of reactions of positrons in solids and nano-powders (Wolfram Mathematica). Equation parameters are extracted from spectra fitting models.
- Above research allowed for estimation of defect concentrations and sizes in solids, classification of defect types (vacancies, dislocations) and more...



5 years • Gridnine Systems • Frontend Software Engineer

Enterprise software development with **Agile** mindset and **DevOps** working pattern.

Google Web Toolkit SVN Git JIRA HTML & CSS JavaScript Java



8 years • Freelance Frontend Developer • Bowling Green, OH

Participated in numerous startups as a **web-designer**, **frontend developer** and **iOS developer**.

Prototyped, **designed** and **programmed** complex UI for enterprise projects.

Sketch Figma Swift Modular JavaScript HTML & CSS React.js Angular

OUTSIDE OF WORK

- Author or an open-source project for [keyboard remapping tool](#) for GNOME desktop environment.
- Open-source evangelist and daily Linux user. [Reporting issues on GNOME GitLab](#).

Why KLA?

- I am looking to move from my current Postdoc position at CUA and apply my Materials Science (defect studies) and programming expertise (simulations, data analysis) in the industry.
- Fascinated to apply my skills at a company with large infrastructure and perspectives.
- My Ph.D. graduate friends currently work in semiconductor industries: KLA (San Jose), Intel (Portland), Wolfspeed (Raleigh).



Good balance between applied science and computational methods. A lot more of R&D and engineering positions compared to other companies..

Professional Networks

More specific **professional achievements** and **software projects** can be found at <https://petrstepanov.com>.



Find examples of my [code on GitHub](#) (50+ repositories).



Check out my design [portfolio on Dribbble](#) (50+ shots).



Refer to [Behance](#) for some of my former designs (30+ work examples).



Discover my professional contacts [on LinkedIn](#) (230+ connections).



Skim through the list of my [publications on Google Scholar](#) (190+ citations).



Get familiar with my [scientific career on ResearchGate](#).